



## About SolarReserve

SolarReserve is U.S.-based global developer of utility-scale solar power projects and advanced concentrating solar power (CSP) technologies. The company has successfully financed and constructed almost \$2.0 billion of large scale solar infrastructure projects worldwide, and is successfully developing projects in the U.S., Australia, South Africa, Chile, Morocco, and China. SolarReserve's key technology advancement is the commercialization of an innovative energy storage solution for generating reliable and cost-effective solar electricity, day and night. Its power delivery capabilities to meet peak demand requirements are nearly identical to natural gas-fired power stations—generating when energy is most valuable, reducing cost and risk to electricity rate payers. The technology has helped the U.S. become a leader in solar with energy storage, allowing it to be exported worldwide, creating thousands of American jobs and enhancing national security through energy independence.

Since its formation in early 2008, SolarReserve has developed an extensive global pipeline of projects totaling 13 gigawatts across the world's most attractive, high-growth renewable energy markets. The company is headquartered in Santa Monica, California and maintains a global presence with seven international offices that support its project development activities in more than 20 countries.

### SolarReserve in the U.S.

SolarReserve's flagship facility, the Crescent Dunes Solar Energy Project in Nevada, was the world's first and currently the world's largest utility-scale CSP solar tower with fully integrated thermal energy storage. It reliably and costeffectively delivers both 110 megawatts of power plus a massive 1,100 megawatt-hours of energy storage, under a 25-year power purchase agreement with NV Energy, Nevada's largest utility. (For perspective, when it came on line in 2015, the 1,100 megawatt hours of storage was greater than all the world's utility scale batteries combined, at a fraction of the cost.) Now, the proven technology atCrescent Dunes is a blueprint for SolarReserve's projects under development in the U.S. and abroad.

SolarReserve's Crescent Dunes project is an example of how the company's CSP projects uniquely help bring back American jobs to the manufacturing sector, as well as provide an enormous opportunity for U.S. content—as opposed to importing solarphotovoltaic (PV) panels from Asia. For the Crescent Dunes project, equipment and services were purchased across 26 states. All 1.2 million square meters of glass required for the 10,347 heliostats (tracking mirrors) was U.S. sourced, with assembly of the heliostat assemblies completed in an on-site manufacturing facility that employed local workers. Virtually all the 90,000 cubic meters of concrete needed for the project was provided from a local supplier. All 2,000 tons of structural steel was U.S. sourced as was most of the piping, cabling and valves. The project created more than 1,000 construction jobs and 4,000 direct, indirect, and induced jobs across America.

SolarReserve is a recognized partner of the U.S. government. SolarReserve received the prestigious CSP APOLLO award from the U.S. Department of Energy's SunShot Initiative to further develop advanced concentrating solar power technology. This award supports SolarReserve in advancing U.S. leadership in the technology and furthering CSP's ability to replace traditional forms of electric power generation in terms of performance, energy storage and lower costs. SolarReserve has also



been supported by the Commerce Department's international trade advocacy efforts in China, Spain, Chile, Australia, Peru, South Africa, and Ghana. In July 2015, SolarReserve participated in the DOE-DOC Joint Trade Mission to China to create export opportunities.

In October 2016, SolarReserve revealed plans to build the Sandstone project, a solar complex with up to ten advanced solar thermal towers. The facility will deliver 2,000 megawatts of firm capacity, 20,000 megawatt-hours of energy storage capability, and 7,000,000 megawatt-hours of annual output. It would be built in Nevada near the Crescent Dunes plant, and connected to California's and Nevada's transmission systems. Such an immense infrastructure project would be a boon to the U.S. economy, attracting over \$5 billion of project investment, creating more than 3,000 construction jobs, 350 high-paying permanent power plant jobs, and 40,000 direct, indirect, and induced jobs across the country. The project is estimated to generate more than \$600 million tax revenues over the first 20 years and expend more than \$100 million in salaries and operating costs each year.

## SolarReserve Globally & Benefits to the U.S.

The global renewable energy market objectively represents one of the most significant business opportunities for the United States in decades. Bloomberg New Energy Finance estimates that more than \$7.7 trillion will be invested in power generation worldwide from 2013 to 2026. Two thirds – over \$5 trillion – of the funds will flow to renewables, which represents more than \$350 billion annually.

With a worldwide portfolio of over 13 gigawatts, SolarReserve has been active in the global renewables market since 2008, and sees worldwide deployment of its U.S. technology as a key component of its business expansion strategy, which will create billions of dollars of U.S. exports and thousands of U.S. jobs. Some selected company accomplishments globally include:

- An agreement with Shenhua Group, the world's largest coal producer, to build 1,000 megawatts of solar thermal projects in China. The deal represents a total project capital expenditure between \$5B and \$6B and will generate nearly \$1B in US exports, helping to counter the trend of importing Chinese renewable technology into the U.S. by exporting more innovative, proven U.S.-developed renewable energy technology and expertise to China. In addition to the Shenhua agreement, SolarReserve has 2,200 megawatts of agreements in China which are not yet publicly disclosed.
- A strong commercial relationship with the South Africa Department of Energy, which selected SolarReserve's Redstone solar thermal project in its latest round of bidding. The 100 megawatt project, with 12 hours of full-load energy storage, will have a 20-year power sales contract with Eskom. The \$850M project is scheduled to achieve financial close this year, with OPIC providing \$400M in debt financing.
- Approval from the Chilean government to develop two of the world's largest solar projects utilizing SolarReserve's proprietary technology. The 260 megawatt Copiapó Solar Project and the 450 megawatt Tamarugal projects will deliver baseload power 24-hours-a-day and will operate at a capacity factor and availability equal to a coal fired power plant.